

Application No. 10/042,359

REMARKS

The rejection of Claims 1 to 27 under 35 U.S.C. 103 as being unpatentable over Chemical Abstract 123:315123 is respectfully traversed.

The Chemical Abstract reference referred to by the Examiner and reviewed by Applicants indicates that the Examiner has not established a prima facie case of obviousness, and moreover, the formula of Claim 1 is not believed to encompass any of the oligomers and polymers derived from polythiophenes of the 123:315123 Chemical Abstract reference. This is particularly the situation as confirmed with Dr. Beng Ong, one of the listed inventors, when z is 1 and A is an arylene divalent linkage. More specifically, there is shown on page 39 of the Abstract a monomer and then a polymer with an n symbol designating, it seems, repeating units, however, a comparison of this formula with that of Claim 1 of the present application readily reveals, according to Dr. Beng Ong, a number of differences including thereof the presence of two R substituents on one of the thiophene rings of the formula of Claim 1 of the present application, and which groups are absent from the formula as illustrated on page 39 of the Chemical Abstract reference. Moreover, on page 40, there is illustrated a polythiophene which contains a carboxylic acid segment and this is not divalent, reference the formula 1 of Claim 1 wherein A is divalent arylene linkage. Moreover, the Examiner has indicated on page 2 that the disclosure of the reference differs from the instant claims, further evidence that a prima facie case of obviousness has not been established, particularly without the benefit of the teachings of the present application.

The Examiner is also referred to the lab Examples beginning on page 25 of the present application, and more specifically, to the Comparative Example beginning on page 27 and the data presented on page 28, lines 1 to 15, noting particularly that a significant reduction in the current on/off ratios over just a five day period further confirmed the extreme functional instability

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of the device of this Comparative Example with a prior art polythiophene which is very similar to the prior art polythiophenes referred to in the Chemical Abstract reference.

The provisional rejection under the judicially created doctrine of obvious type double patenting as being unpatentable over Claims 1 to 27 and Claims 1 to 27 of copending applications 10/042,357 (D/A1656 filed 1/11/2002) and 10/042,360 (D/A1658 filed 1/11/2002), respectively, is respectfully traversed, particularly since it is not believed that the Examiner has provided sufficient basis that these claims are sufficiently similar to justify this rejection. Nevertheless, to advance and expedite prosecution, Applicants are submitting herewith a Terminal Disclaimer whereby any patent issuing from the present application will expire simultaneously with the earliest expiration date of any patent issued from the copending applications.

Accordingly, it is respectfully urged that the Examiner reconsider his position and issue a notice of allowance and/or contact Applicants' attorney to discuss any further issues that may arise.

No additional fee is believed to be required for this amendment, however, the undersigned Xerox Corporation attorney (or agent) hereby authorizes the charging of any necessary fees, other than the issue fee, to Xerox Corporation Deposit Account No. 24-0025.

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In the event the Examiner considers personal contact advantageous to the disposition of this case, he is hereby authorized to call Eugene O. Palazzo, at Telephone Number 585-423-4687, Rochester, New York.

Respectfully submitted,



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EOP/jah

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VERSION WITH MARKINGS TO SHOW CHANGES MADE:

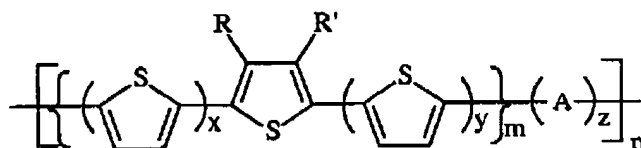
IN THE SPECIFICATION:

Page 1, line 6:

Illustrated in copending applications U.S. Serial No. [(not yet assigned - D/A1333)] 10/042,342, U.S. Serial No. [(not yet assigned - D/A1332)] 10/042,358, U.S. Serial No. [(not yet assigned - D/A1334)] 10/042,356, U.S. Serial No. [(not yet assigned - D/A1656)] 10/042,357, U.S. Serial No. [(not yet assigned - D/A1658)] 10/042,360, the disclosures of which are totally incorporated herein by reference, and filed concurrently herewith, all titled "Polythiophenes and Devices Thereof" and all filed January 11, 2002, are polythiophenes and devices thereof. The appropriate components, processes thereof and uses thereof illustrated in these copending applications may be selected for the present invention in embodiments thereof.

IN THE CLAIMS:

1. (Amended) Polythiophenes of the formula



wherein R and R' are side chains; A is a divalent arylene linkage; x and y represent the number of unsubstituted thienylene units; z is [0 or] 1, and wherein the sum of x and y is greater than [zero] about 2; m represents the number of segments; and n represents the degree of polymerization.

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2. (Amended) A polythiophene in accordance with claim 1 wherein said side chains R, and R' are independently selected from the group consisting of alkyl, alkyl derivatives of alkoxyalkyl; siloxy-substituted alkyl, perhaloalkyl and polyether; said A is [an alkylene or arylene optionally of] phenylene, biphenylene, phenanthrenylene, dihydrophenanthrenylene, fluorenylene[, oligoarylene, methylene, polymethylene, dialkylmethylene, dioxyalkylene, dioxyarylene, or oligoethylene oxide]; and n is from about 5 to about 5,000.

7. (Amended) A polythiophene in accordance with claim 1 wherein x is a number of from [zero] 1 to about 10, [z is zero or 1,] and m is from 1 to about 5.

8. (Amended) A polythiophene in accordance with claim 1 wherein x is a number of from about 1 to about 7, [z is zero or 1,] m is from 1 to about 5, and n is from about 5 to about 3,000.

14. (Amended) A polythiophene in accordance with claim 1 wherein R and R' are selected from the group consisting of hexyl, heptyl, octyl, nonyl, decyl, undecyl, dodecyl, tridecyl, tetradecyl, and pentadecyl; A is selected from the group consisting of phenylene, biphenylene, and fluorenylene; x and y are each independently a number of from [zero] 2 to about 10; and m is a number of from 1 to about 5.

20. (Amended) A polythiophene in accordance with claim 1 wherein x, y and m are from 1 to 3[, and z is 0 or 1].

21. (Amended) A polythiophene in accordance with claim 1 wherein x, y and m are 1[, and z is 0 or 1].

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22. (Amended) A polythiophene in accordance with claim 1 wherein x, y are from 0 to 3, and m is from 1 to 3[, and z is 0 or 1].

23. (Amended) A polythiophene in accordance with claim 1 wherein x, y and m are 1[, and z is 0].

25. (Amended) A polythiophene in accordance with claim 1 wherein the sum of x and y is from about [1] 2 to about 10.

26. (Amended) A polythiophene in accordance with claim 1 wherein the sum of x and y is from about [1] 3 to about 5.